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Evidence-based laparoscopic appendectomy practice requires national database studies

- Nereo Vettoretto, Ferdinando Agresta, Luigi Presenti, Mario Morino

This correspondence is written on behalf of ACOI (Associazione Chirurghi Ospedalieri Italiani) and SICE (Società Italiana Chirurgia Endoscopica e Nuove Tecnologie).

Dear Editor,

As the article by Saia et al. [1] indicates, administrative databases are useful in comparing different surgical techniques: randomized, controlled trials are difficult to realize, require large sample sizes, and are mostly subject to blinding biases. The results demonstrated in this study contribute to the discussion around data published in two surveys concerning dissemination of laparoscopic appendectomy (LA) in Italy, commissioned by two different scientific surgical societies [2, 3]. The overview provided of the situation, 7 years after these initial results, confirm the increasing rate of LAs, particularly in fertile women. The use of LA is undoubtedly evidence based; no hard evidence confirms its application to subgroups different from premenopausal women, where the rate of differential diagnoses, after exploratory laparoscopy, is quite high. A Cochrane review by Sauerland et al. [4] emphasizes the poor quality of evidence in support of the advantages of an all-comers policy for LA. Similarly, the noted trend of performing fewer appendectomies can be due to the increasing application of antibiotic therapy to uncomplicated cases, which can be effective in most patients and can help avoid the need for surgery, as proved in a recent meta-analysis [5].

The major concern for the surgeon and the patient in the dissemination of LA has been the suspected increase in the rate of postoperative intra-abdominal abscesses, which might require a prolongation of the hospital stay or the need for a second surgery; thus, it would be interesting to retrieve from the Veneto regional database the number of readmissions, so as to ascertain the real entity of this problem and its trend over the 8-year period. More recent reports have downplayed this complication [6], but the problem remains unresolved. Today, surgical training and standardization of the technique seem of utmost importance. Surgeon training is a fundamental issue, and it must be analyzed, in the existing health care systems, on the basis of a single ward or practice. One of the above-mentioned national surveys demonstrated that LA is performed in more than 90 % of the hospitals, but in low numbers (30–60 % of appendectomies) and by a selected laparoscopic team (<30 % of the surgeons working in the same practice), and is not related to case volume [2].

One of the answers to the extreme regional variability in the number of LAs performed might be standardization of the surgical approach through the wide adoption of surgical evidence-based guidelines that must be realized, implemented, and controlled by national scientific societies in tandem with a central health institute. This has been accomplished in Italy with the drafting of evidence-based guidelines and their diffusion through the scientific literature [7, 8] and through the Italian Istituto Superiore di Sanità (http://www.snlg-iss.it/cms/files/LG_ACOI_appendicectomia_%20laparoscopica.pdf).

We welcome this first Italian database study on LA and hope it will act as a call for increasing cooperation between epidemiologists, scientific surgical societies, and health stakeholders to provide a useful tool in the hands of policy makers, along with the best evidence-based clinical practice for surgical patients.

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